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(56) Documents cited

None

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A4B

(54) Shelf support bracket

(57) A shelf support bracket comprises an elongate member of substantially constant generally S-shaped cross-section forming two channels 11 and 12 of different widths for shelves of different thicknesses to be accommodated facing in opposite directions. The bracket may be secured horizontally against a substantially flat vertical wall with either one of the channels uppermost and facing away from the wall, the base of the upper channel being adjacent the wall and the edge of the lower channel remote from the upper channel abutting the wall to provide bracing. Slots 23 and 24 in each channel receive and locate in position removable shelf-engagement members 20 which in use engage an edge of a shelf 21 inserted in the upper channel for supporting the shelf by a cantilever action. Figure 1A shows the bracket in a first position of use and Figure 1B shows the same bracket in a second position for a thinner shelf.

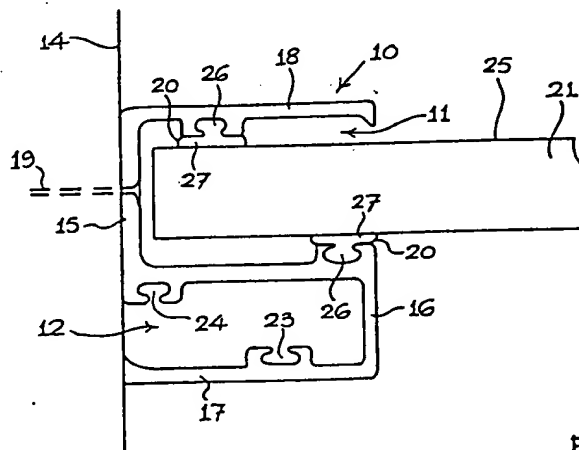


FIG. 1A

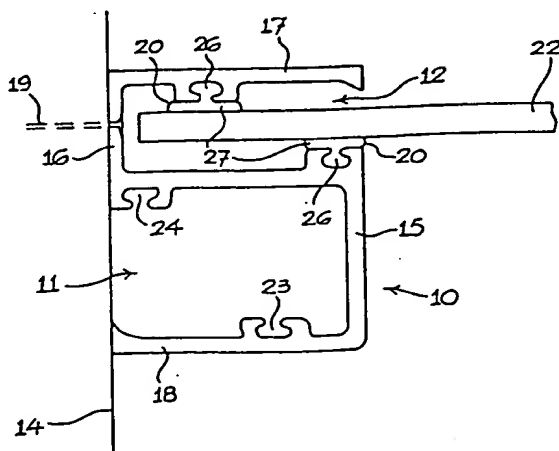


FIG. 1B

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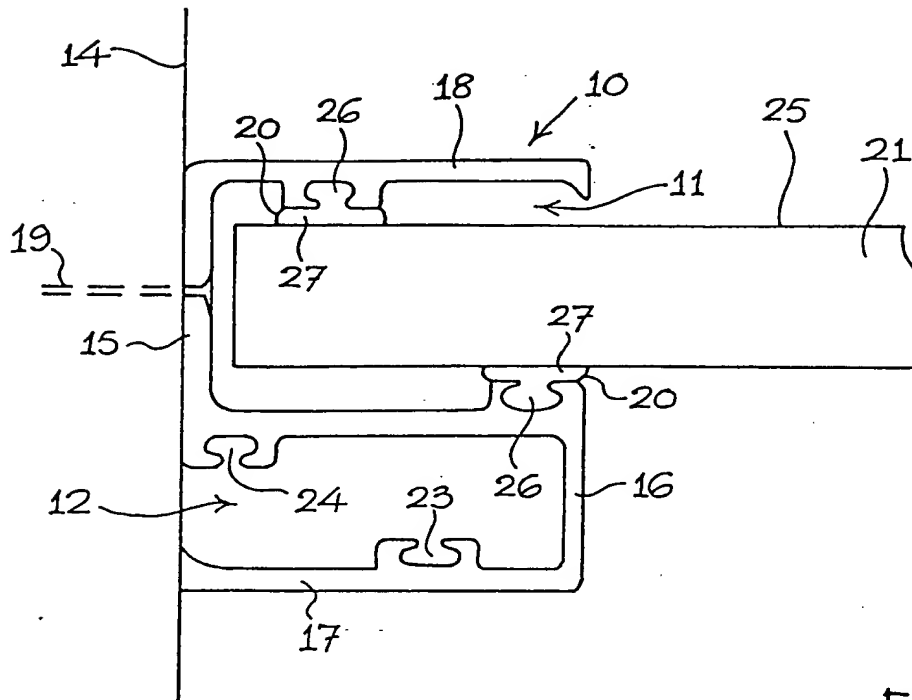


FIG. 1A

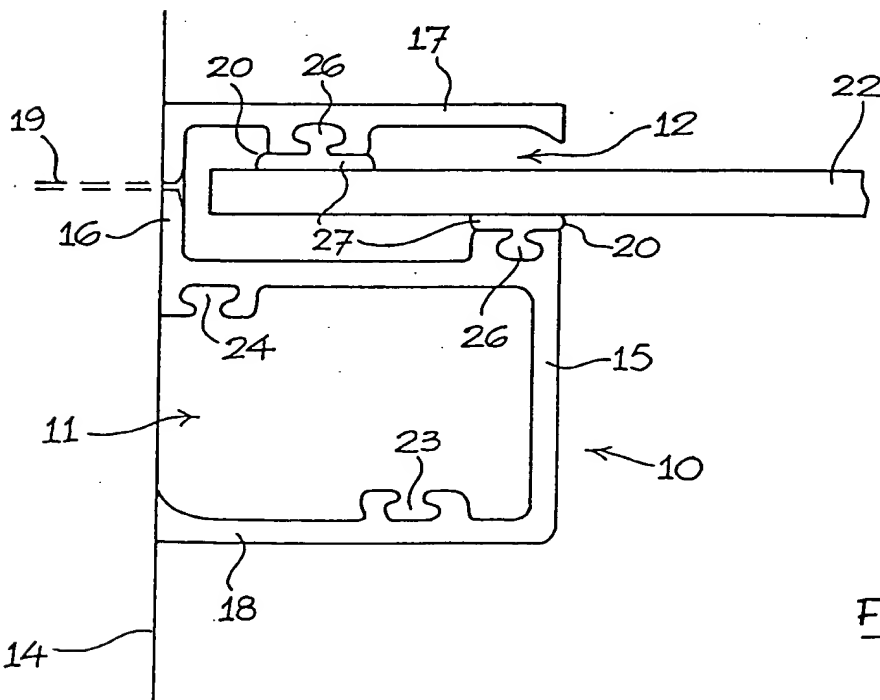
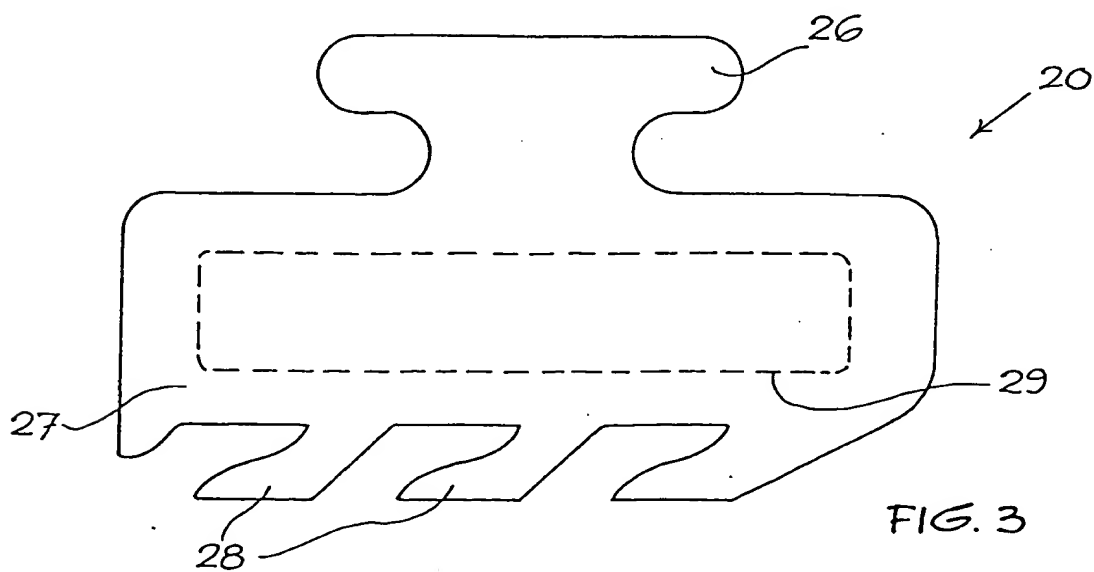
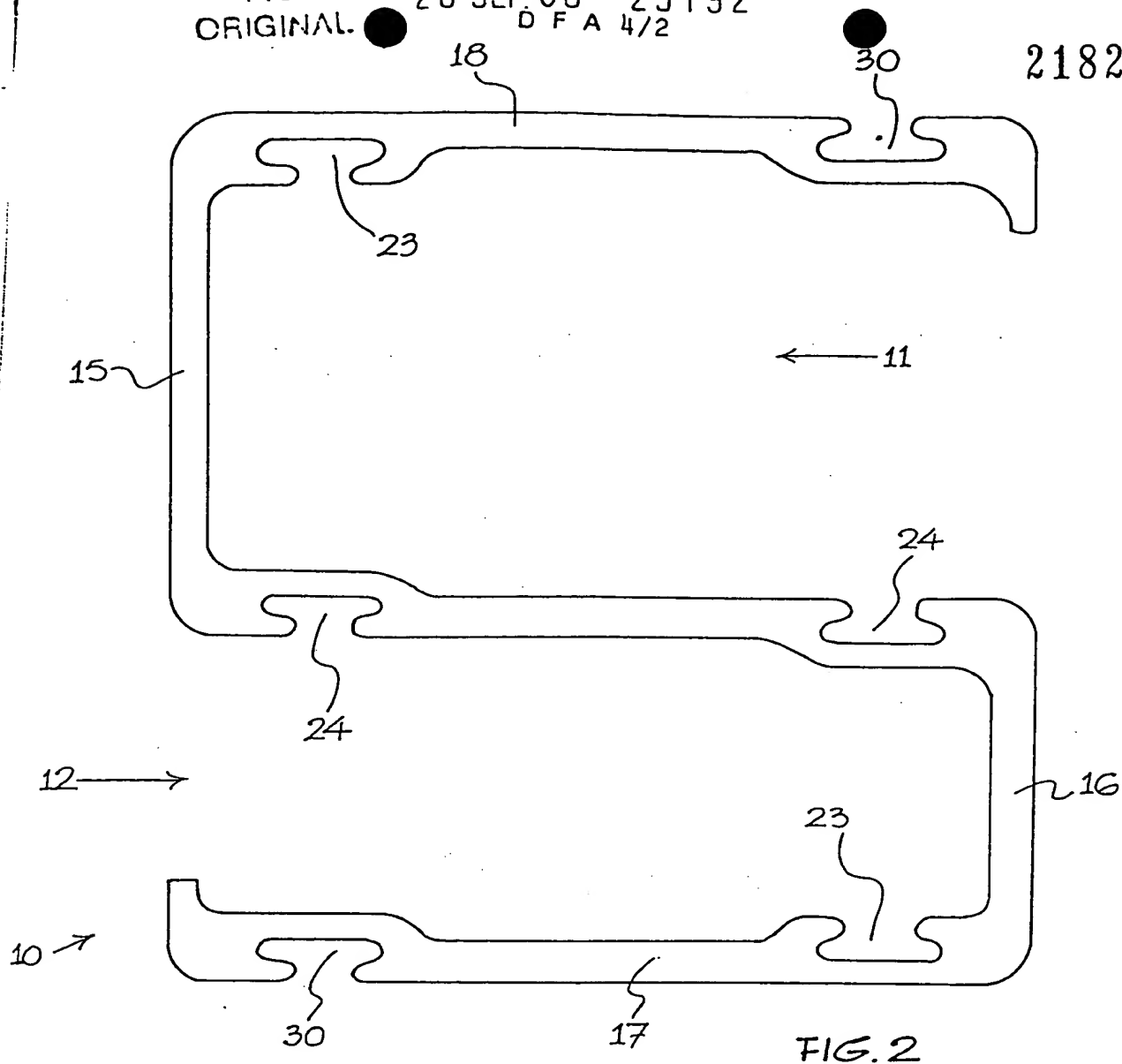


FIG. 1B

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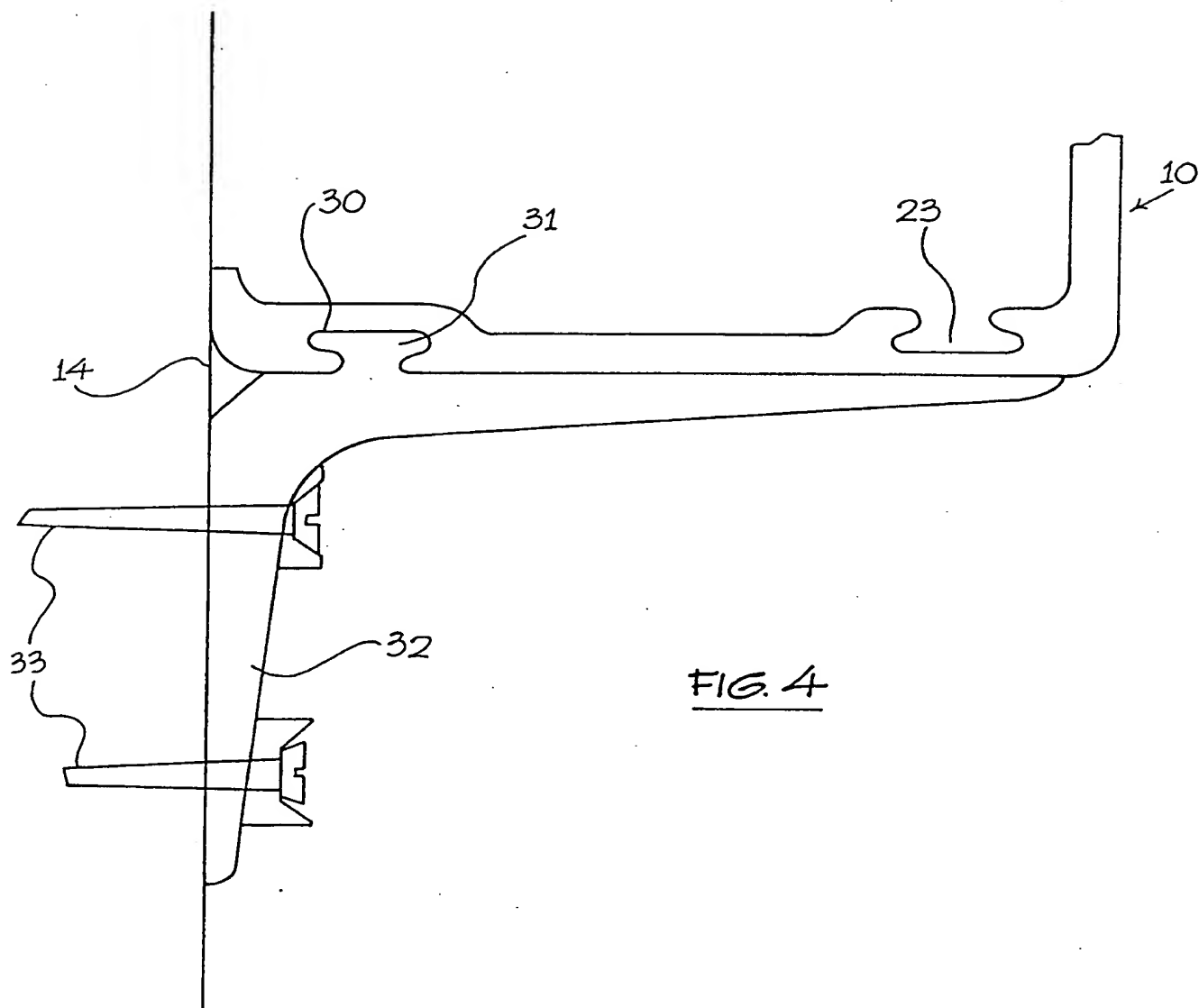


FIG. 4

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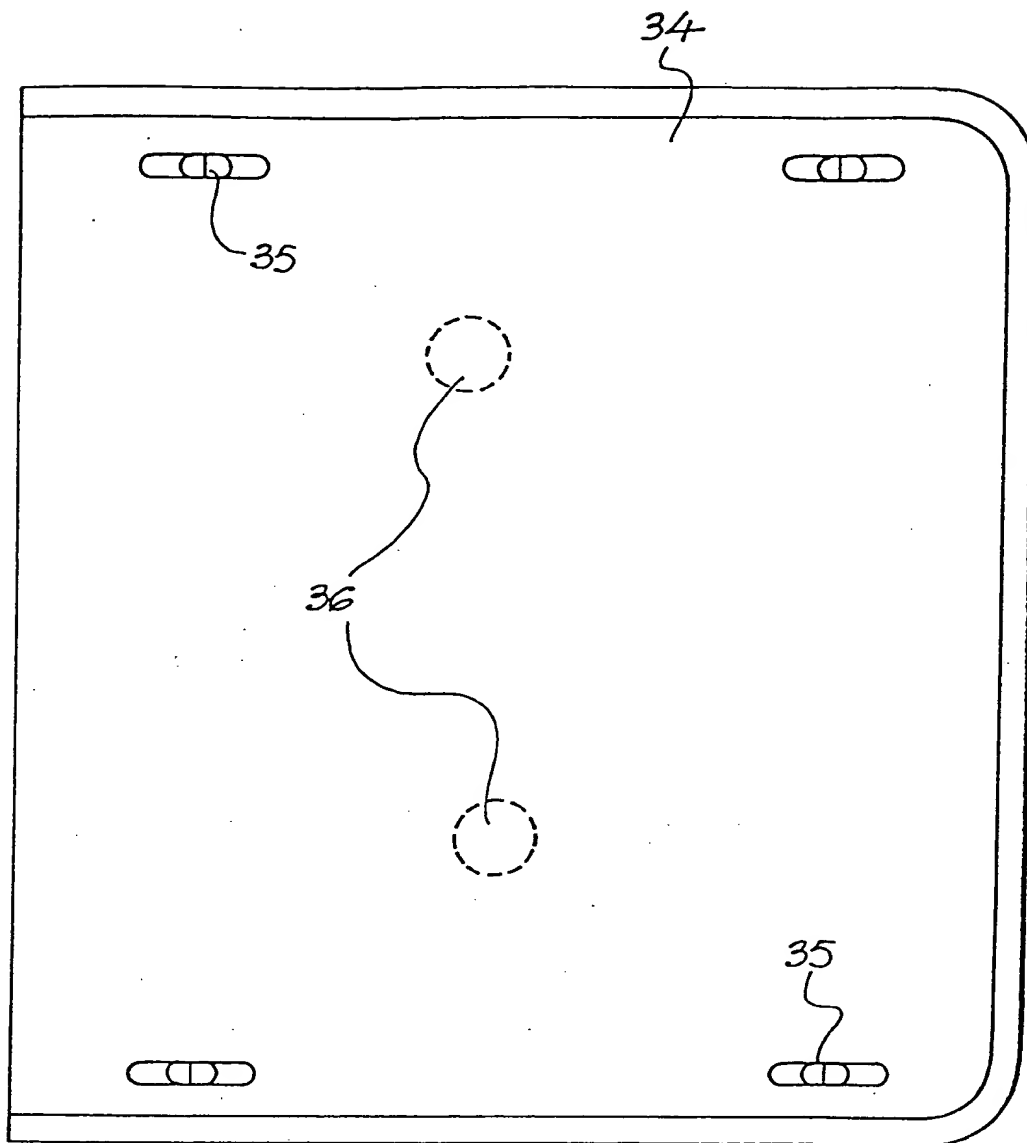


FIG. 5A

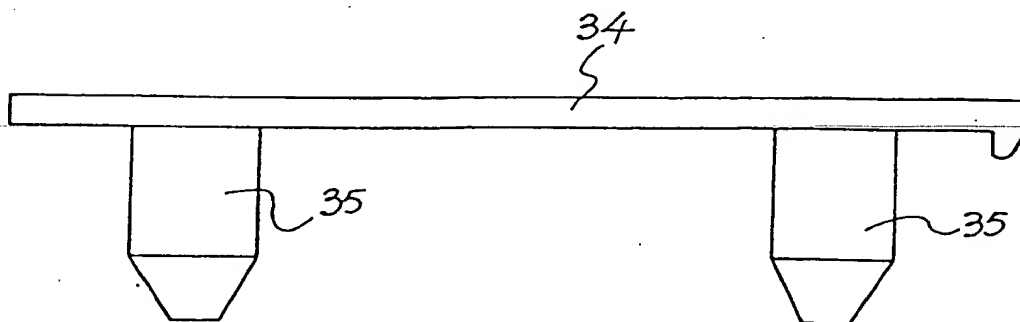


FIG. 5B

SPECIFICATION

Shelf support bracket

5 This invention relates to a shelf support bracket.

A shelf support bracket which operates to support a shelf by one edge in cantilever fashion is described in GB 2 053 666 B. A disadvantage of this prior bracket is that it can only accommodate one

10 thickness of shelf.

According to the present invention there is provided a shelf support bracket comprising an elongate member of substantially constant generally S-shaped cross-section forming two channels of

15 different widths facing in opposite directions, means for securing the bracket opposite directions, means for securing the bracket horizontally against a substantially flat vertical wall with either one of the channels uppermost and facing away from the wall, the base of the upper channel being adjacent the wall

20 and the edge of the lower channel remote from the upper channel abutting the wall to providing bracing, and means in each channel to receive and locate in position removable shelf-engagement members which in use engage an edge of a shelf inserted in the upper channel for supporting the shelf by a cantilever action.

NB

The advantage of the invention is that by the provision of two channels of different widths, either one of which may be placed in the operative upper position facing outwardly of the wall for receiving an edge of a shelf, and further by the use of removable shelf-engagement members of which a range can be designed having different thicknesses, a wide range

35 of shelf thicknesses can be accommodated by the bracket. Thus coarse adaptation to the desired shelf thickness is effected by selecting either the wider or the narrower of the two channels, and fine adjustment is effected by then selecting the proper

40 thickness of shelf-engagement members.

Preferably the means in each channel to receive and locate the removable shelf-engagement members comprises a pair of slots running longitudinally of the bracket, the slots being

45 disposed on opposite sides of the channel with the slot on the outermost side of the channel being disposed closer to the base thereof than the slot on the opposite side of the channel, whereby when the edge of the shelf is inserted in the channel the

50 shelf-engagement member in the first mentioned slot engages the top surface of the shelf closer to the rear edge thereof than the shelf-engagement member in the second mentioned slot.

Preferably, also, each slot has a neck opening of reduced width so as to retain therein a complementary enlarged root portion of a shelf-engagement member, the latter having a head portion which engages the shelf. The head portion of each shelf-engagement member may have fins on its

60 shelf-engaging surface, the fins being inclined towards the base of the channel so as to frictionally resist any tendency for the shelf to inadvertently come out of the channel. The bracket may be made of a lightweight metal such as extruded aluminium or

65 aluminium alloy or rigid plastics material, and the

shelf engagement members may be made of extruded PVC or rubber.

NB

In the simplest case the means for securing the bracket horizontally against a substantially flat

70 vertical wall with either one of the channels uppermost and facing away from the wall comprises a series of screw holes distributed along the base of each channel.

For heavy duty applications the bracket may be supported from below by a support member in the form of a further bracket which in use engages the outside surface of the lower channel and is also secured to the wall. For this purpose the outside surface of each channel may be designed for positive

75 engagement with such support member.

End caps may be provided which cover each end of the bracket, the end caps being held in position by projections which enter the ends of selected slots in the bracket. The end caps may have screw position

80 indicators, such as marks or actual screw holes, which show where screws can be screwed through the end caps to enter the ends of a shelf. By this means the shelf is prevented from being withdrawn until the screws are taken out.

Embodiments of the invention will now be described, by way of example, with reference to the accompanying drawings, wherein:

Figure 1A is a cross-sectional view of a first embodiment of the invention in a first position of

85 use,

Figure 1B shows the embodiment of *Figure 1* in a second position of use,

Figure 2 is an enlarged cross-section of a second embodiment of bracket according to the invention,

Figure 3 is a still further enlarged cross-section of a PVC shelf-engaging member for use with the bracket of *Figures 1A* and *1B* or the bracket of *Figure 2*,

Figure 4 is a cross-section of a support member for the bracket of *Figure 2*, and

Figures 5A and *5B* are side and end views respectively of an end cap for use with the bracket of *Figure 2*.

Referring to *Figures 1A* and *1B*, the shelf support bracket there shown in cross-section comprises an elongate member 10 of substantially constant generally S-shaped cross-section forming two channels 11 and 12 of different widths facing in opposite directions. The bracket 10 is shown secured horizontally against a substantially flat vertical wall 14, in *Figure 1A* with the wider channel 11 uppermost and in *Figure 1B* with the narrower channel 12 uppermost. In each case the upper channel faces away from the wall 14 with the base 15 or 16 of the upper channel adjacent the wall and the edge of the lower channel remote from the upper channel abutting the wall to provide bracing. The bracing edge is the edge 17 in *Figure 1A* and the edge 18 in *Figure 1B*. The bracket is secured in either position by screws 19 which pass through a series of screw

90 holes (not shown) distributed along the base of each channel.

Suitable plugs (not shown) may be provided to close off any un-used holes which would otherwise be left exposed in the base 15 or 16.

Means are provided in each channel to receive and

locate in position removable shelf-engagement members 20 which in use engage the longitudinal edge of a shelf 21 or 22 inserted in the upper channel 11 or 12 for supporting the shelf by a cantilever

5 action.

The means in each channel to receive and locate the removable shelf-engagement members 20 comprises a pair of slots 23 and 24 running longitudinally of the bracket, the slots being
10 disposed on opposite sides of the channel with the slot 23 on the outermost side of the channel being disposed closer to the base thereof than the slot 24 on the opposite (inner) side of the channel, whereby for the upper channel the shelf-engagement member
15 20 in the slot 23 engages the top surface 25 of the shelf 21 or 22 closer to the rear edge thereof than the shelf-engagement member 20 in the slot 24. The shelf is thereby held by its edge in cantilever fashion by the members 20. It will be understood that, as
20 shown, it is only necessary to use the members in the channel 11 or 12 which is uppermost, since the other channel which faces the wall 14 does not support a shelf and simply provides bracing for the bracket.

As shown, each slot 23 and 24 has a neck opening
25 of reduced width so as to retain therein a complementary enlarged root portion 26 of a shelf-engagement member, the latter having a head portion 27 which engages the shelf. As shown in Figure 3, the head portion 27 of each

shelf-engagement member 20 may have fins 28 on its shelf-engaging surface, the fins being inclined in use towards the base 15 or 16 of the upper channel so as to frictionally resist any tendency for the shelf to inadvertently come out of the channel. As shown
35 in dashed lines 29 in Figure 3, each member 20 can be hollow if desired to aid compression. The bracket 10 may be made of a lightweight metal such as extruded aluminium or aluminium alloy, or rigid plastic material and the shelf-engagement members
40 20 may be made of extruded PVC. The latter are slid into the desired slots 23 and 24 from one end.

For heavy duty applications the bracket 10 may be supported from below by a support member in the form of a further bracket which in use engages the
45 outside surface of the lower channel and is also secured to the wall. For this purpose the embodiment of bracket 10 shown in Figure 2 may be used. This bracket is essentially the same as that shown in figures 1A and 1B, and is used in the same
50 manner. The same reference numerals have been used as in figures 1A and 1B. However, it includes further slots 30 on the outside surface of each channel. The purpose of the slots 30 is to positively engage a complementary rib 31 on the further
55 bracket 32, Figure 4, which is secured to the wall 14 by screws 33. The further bracket 32 is also preferably an aluminium extrusion of substantially constant cross-section and is inserted in position by sliding in from one end before fixing the bracket 10.
60 Naturally only the lowermost one of the two slots 30 will be used at any given time, and the upper slot 30 may therefore be used to accommodate an indexing extrusion (not shown) providing details about the items on display.

65 End caps 34 may be provided which cover each

end of the bracket 10, the end caps being held in position by projections 35 which enter the ends of the slots 23 and 30 in the bracket. The end caps may have screw position indicators, such as marks 36 or
70 actual screw holes (not shown), which show where screws can be screwed through the end caps to enter the ends of a shelf. By this means the shelf is prevented from being withdrawn until the screw are taken out.

Overall cross-sectional dimensions of the bracket
75 10 are about 40-50mm high by 40-50mm wide. The channel 11 is about 20mm wide and the channel 12 about 12mm wide. Thus by a suitable choice of thickness for the members 20 the channel 11 can
80 accommodate shelves from 15-18mm thick, while the channel 12 can accommodate shelves from 6-10mm thick.

CLAIMS

85 1. A shelf support bracket comprising an elongate member of substantially constant generally S-shaped cross-section forming two channels of different widths facing in opposite directions, means
90 for securing the bracket horizontally against a substantially flat vertical wall with either one of the channels uppermost and facing away from the wall, the base of the upper channel being adjacent the wall and the edge of the lower channel remote from the
95 upper channel abutting the wall to provide bracing, and means in each channel to receive and locate in position removable shelf-engagement members which in use engage an edge of a shelf inserted in the upper channel for supporting the shelf by a
100 cantilever action.

2. A shelf support bracket as claimed in claim 1, wherein the means in each channel to receive and locate the removable shelf-engagement members
105 comprises a pair of slots running longitudinally of the bracket, the slots being disposed on opposite sides of the channel respectively.

3. A shelf support bracket as claimed in claim 2, wherein the slot on the outermost side of the channel is disposed closer to the base thereof than the slot on
110 the opposite side of the channel, whereby when the edge of a shelf is inserted in the channel the shelf-engagement member in the first mentioned slot engages the top surface of the shelf closer to the rear edge thereof than the shelf-engagement
115 member in the second mentioned slot.

4. A shelf support bracket as claimed in claim 2 or 3, wherein each slot has a neck opening of reduced width so as to retain therein a complementary enlarged root portion of a shelf-engagement
120 member, the latter having a head portion which engages the shelf.

5. A shelf support bracket as claimed in claim 4, wherein the head portion of each shelf-engagement member has fins on its shelf-engaging surface, the
125 fins being inclined towards the base of the channel so as to frictionally resist any tendency for the shelf to inadvertently come out of the channel.

6. A shelf support bracket as claimed in any preceding claim, wherein the means for securing the
130 bracket horizontally against a substantially flat

vertical wall with either one of the channels uppermost and facing away from the wall comprises a series of screw holes distributed along the base of each channel.

- 5 7. A shelf support bracket as claimed in any preceding claim, further including means for supporting the bracket from below comprising a support member in the form of a further bracket which in use engages the outside surface of the
- 10 lower channel and is also secured to the wall.
8. A shelf support bracket as claimed in claim 8, wherein the outside surface of each channel is designed for positive engagement with the support member.
- 15 9. A shelf support bracket as claimed in any preceding claim, further including end caps which cover each end of the bracket, the end caps being held in position by projections which enter the ends of selected slots in the bracket.
- 20 10. A shelf support bracket as claimed in claim 9, wherein the end caps have screw position indicators which show where screws can be screwed through the end caps to enter the ends of a shelf to prevent the shelf from being withdrawn until the screws are
- 5 taken out.
11. A shelf support bracket substantially as described herein with reference to the accompanying drawings.